Assignment no 3

1.Validation

```html
<!doctype html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width,initial-scale=1">
    <title>Registration Validation</title>
    <style>
        body{font-family:Arial,Helvetica,sans-serif;padding:20px}
        form{max-width:420px;margin:0 auto}
        .field{margin-bottom:12px}
        label{display:block;margin-bottom:4px}
        input{width:100%;padding:8px;box-sizing:border-box}
        .error{color:#b00020;font-size:0.9em;height:1.1em}
        .success{color:green;margin-top:12px}
        button{padding:8px 12px}
    </style>
</head>
<body>
    <h2>Registration Form</h2>
    <form id="regForm" novalidate>
        <div class="field">
            <label for="name">Name</label>
            <input type="text" id="name" name="name" placeholder="Full name">
            <div class="error" id="nameErr"></div>
        </div>

        <div class="field">
            <label for="email">Email</label>
            <input type="email" id="email" name="email"
placeholder="you@example.com">
            <div class="error" id="emailErr"></div>
        </div>

        <div class="field">
            <label for="mobile">Mobile No.</label>
            <input type="tel" id="mobile" name="mobile" placeholder="10 digit
mobile number">
            <div class="error" id="mobileErr"></div>
        </div>

        <button type="submit">Register</button>
        <div class="success" id="successMsg"></div>
    </form>

    <script>
```

```javascript
(function(){
    const form = document.getElementById('regForm');
    const nameEl = document.getElementById('name');
    const emailEl = document.getElementById('email');
    const mobileEl = document.getElementById('mobile');
    const nameErr = document.getElementById('nameErr');
    const emailErr = document.getElementById('emailErr');
    const mobileErr = document.getElementById('mobileErr');
    const successMsg = document.getElementById('successMsg');

    function validateName(v){
        if(!v) return 'Name is required.';
        if(!/^[A-Za-z ]{2,}$/.test(v.trim())) return 'Enter a valid
name (letters and spaces only).';
        return '';
    }

    function validateEmail(v){
        if(!v) return 'Email is required.';
        if(!/^[^\s@]+@[^\s@]+\.[^\s@]+$/.test(v)) return 'Enter a
valid email.';
        return '';
    }

    function validateMobile(v){
        if(!v) return 'Mobile number is required.';
        if(!/^\d{10}$/.test(v)) return 'Enter a 10-digit mobile
number.';
        return '';
    }

    function clearErrors(){
        nameErr.textContent = '';
        emailErr.textContent = '';
        mobileErr.textContent = '';
        successMsg.textContent = '';
    }

    form.addEventListener('submit', function(e){
        e.preventDefault();
        clearErrors();
        const name = nameEl.value;
        const email = emailEl.value;
        const mobile = mobileEl.value.replace(/\s+/g,'');

        const nErr = validateName(name);
        const emErr = validateEmail(email);
        const mErr = validateMobile(mobile);
```

```
            let ok = true;
            if(nErr){ nameErr.textContent = nErr; ok = false; }
            if(emErr){ emailErr.textContent = emErr; ok = false; }
            if(mErr){ mobileErr.textContent = mErr; ok = false; }

            if(ok){
                successMsg.textContent = 'Registration successful.';
                form.reset();
            }
        });
    })();
</script>
</body>
</html>
```

OUTPUT

Registration Form

Name

kale Nikhil

Email

kalenikhil0007@gmail.com

Mobile No.

123456789067890
Enter a 10-digit mobile number.

Register

2. Simple calculator

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Simple Calculator</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background: #dbd6d6;
            display: flex;
            justify-content: center;
            align-items: center;
            height: 100vh;
        }
        .calculator {
```

```
            background: rgb(244, 238, 238);
            padding: 20px;
            border-radius: 10px;
            width: 220px;
            box-shadow: 0 0 10px rgba(0,0,0,0.2);
        }
        input {
            width: 100%;
            height: 40px;
            font-size: 18px;
            margin-bottom: 10px;
            text-align: right;
        }
        button {
            background: rgb(251, 247, 247);
            width: 45px;
            height: 45px;
            font-size: 16px;
            margin: 3px;
            cursor: pointer;
        }
    </style>
</head>
<body>

<div class="calculator">
    <input type="text" id="result" disabled>

    <div>
        <button onclick="clearResult()">C</button>
        <button onclick="appendValue('/')">/</button>
        <button onclick="appendValue('*')">*</button>
        <button onclick="appendValue('-')">-</button>
    </div>
    <div>
        <button onclick="appendValue('7')">7</button>
        <button onclick="appendValue('8')">8</button>
        <button onclick="appendValue('9')">9</button>
        <button onclick="appendValue('+')">+</button>
    </div>
    <div>
        <button onclick="appendValue('4')">4</button>
        <button onclick="appendValue('5')">5</button>
        <button onclick="appendValue('6')">6</button>
        <button onclick="calculate()">=</button>
    </div>
    <div>
        <button onclick="appendValue('1')">1</button>
```

```
        <button onclick="appendValue('2')">2</button>
        <button onclick="appendValue('3')">3</button>
        <button onclick="appendValue('0')">0</button>
    </div>
</div>

<script>
    function appendValue(value) {
        document.getElementById("result").value += value;
    }

    function clearResult() {
        document.getElementById("result").value = "";
    }

    function calculate() {
        document.getElementById("result").value =
            eval(document.getElementById("result").value);
    }
</script>

</body>
</html>
```

OUTPUT